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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,649	08/21/2003	Scott L. Williston	GP-301767	3888
7590	08/08/2005		EXAMINER	
CHRISTOPHER DEVRIES General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			DUNN, DAVID R	
			ART UNIT	PAPER NUMBER
			3616	
			DATE MAILED: 08/08/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/646,649	WILLISTON ET AL.
	Examiner David Dunn	Art Unit 3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "said first adjustable shock absorber". There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 11, 13, 14, 16, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Perini et al. (4,832,141).

Perini et al. discloses a payload monitoring system for a vehicle, comprising: a first adjustable spring device (6); a first pressure transducer (27); and a controller (28; see Figure 3) that determines a payload of the vehicle based on the pressure signal (see also Abstract).

The first spring is adjusted pneumatically (see Abstract, second sentence). The system includes a first sensor (13) for generating a position signal and a first compressor ("engine driven

compressor"; see column 2, line 40) that adjusts the spring device based on the position signal. The controller indicates the payload to an operator (display 38).

Perini shows the step of detecting a payload change including detecting a change in vehicle position (by arm 21; see column 2, lines 42-55).

5. Claims 1-3, 6-8, 11, 13, 14, 16, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Dea (5,478,974).

O'Dea discloses a payload monitoring system for a vehicle, comprising: a first adjustable spring device (44); a first pressure transducer (64); and a controller (186) that determines a payload of the vehicle based on the pressure signal (see column 7, lines 12-20, etc). The spring is adjusted pneumatically (column 5, lines 20-30). The system further includes a first sensor (52); and a first compressor (inherent, see column 5, lines 28-30) that adjusts the spring device based on the position signal. The system includes a second spring device; and a second pressure transducer (see column 5, lines 48-50). The system also includes a second sensor for generating a position signal (see column 5, lines 48-49: "separate leveling valves controlling the inflation of the air bags of each axle assembly"). The controller indicates the payload to an operator (see Figure 4; column 8, lines 62-67).

6. Claims 1-3, 11, 13, 14, 16, 17, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton et al. (4,783,089).

Hamilton et al. discloses a payload monitoring system for a vehicle, comprising: a first adjustable spring device (20); a first pressure transducer (65); and a controller (68) that determines a payload of the vehicle based on the pressure signal (see column 7, lines 35-45;

column 15, lines 18-35). The system includes a position sensor (see column 7, lines 45-50); and a compressor that adjusts the spring based on the position signal (column 7, lines 10-20).

Hamilton et al. shows the step of initiating a delay period to confirm the payload change (“duty cycle”; see column 11, lines 45-55). The position signal is also used to refine the payload value (see column 7, lines 45-55; column 14, lines 40-53).

7. Claims 1, 4-6, 9, 10, 13, 14, 16, 18, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Lech et al. (6,398,277).

Lech et al. discloses a payload monitoring system for a vehicle, comprising: a first adjustable spring device (20); a first pressure transducer (44); and a controller (18) that determines a payload of the vehicle based on the pressure signal (see column 8, lines 33-40).

The spring device is adjusted hydraulically (see column 3, lines 34-60). The system includes a position sensor (72). The system includes a second position sensor (see column 5, lines 18-31).

#### *Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12, 15, 23, 24, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perini et al. in view of Stevenson (5,167,289).

Perini et al. is discussed above and fails to show the controller warning an operator if the payload value is greater than a threshold value.

Stevenson teaches an air spring load monitoring system which compares the payload value to a threshold and warns the operator if the value is greater than the threshold (see column 6, lines 25-31; column 7, lines 28-36). See also Figure 5 ("OVER").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Perini et al. with the teachings of Stevenson in order to warn the operator if the vehicle was overload to protect the springs and other vehicle components from damage.

10. Claims 12, 15, 23, 24, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Dea in view of Stevenson (5,167,289).

O'Dea is discussed above and fails to show the controller warning an operator if the payload value is greater than a threshold value.

Stevenson teaches an air spring load monitoring system which compares the payload value to a threshold and warns the operator if the value is greater than the threshold (see column 6, lines 25-31; column 7, lines 28-36). See also Figure 5 ("OVER").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify O'Dea with the teachings of Stevenson in order to warn the operator if the vehicle was overload to protect the springs and other vehicle components from damage.

11. Claims 12, 15, 23-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Stevenson (5,167,289).

Hamilton et al. is discussed above and fails to show the controller warning an operator if the payload value is greater than a threshold value.

Stevenson teaches an air spring load monitoring system which compares the payload value to a threshold and warns the operator if the value is greater than the threshold (see column 6, lines 25-31; column 7, lines 28-36). See also Figure 5 ("OVER").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hamilton et al. with the teachings of Stevenson in order to warn the operator if the vehicle was overload to protect the springs and other vehicle components from damage.

12. Claims 23, 24, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lech et al. in view of Stevenson (5,167,289).

Lech et al. is discussed above and fails to show the controller warning an operator if the payload value is greater than a threshold value.

Stevenson teaches an air spring load monitoring system which compares the payload value to a threshold and warns the operator if the value is greater than the threshold (see column 6, lines 25-31; column 7, lines 28-36). See also Figure 5 ("OVER").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lech et al. with the teachings of Stevenson in order to warn the operator if the vehicle was overload to protect the springs and other vehicle components from damage.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kyrtos shows a payload monitor for a hydraulic system. Svartz et al. shows an electronic height control. Kadlicko et al. shows a hydraulic suspension system.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 571-272-6670. The examiner can normally be reached on Mon-Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn  
Primary Examiner  
Art Unit 3616